

In the Claims

Please replace all prior versions, and listings, of claims in the application with the following list of claims:

Please amend pending claims 2, 4, 5, 8-9, 11, 13-16, 19, 22, and 26-28 as noted below. New claims 30-41 have been added. Support for the amendments to the claims can be found throughout the specification and drawings, for example at page 7, line 13. No new matter has been added.

1. (Cancelled)
2. (Currently Amended) A method as in claim 94, wherein the first chemical or biological agent is a drug candidate.
3. (Cancelled)
4. (Currently Amended) A method as in claim 94, wherein the first article is a magnetic article.
5. (Original) A method as in claim 4, wherein each of the first and second articles is a magnetic bead.
6. (Cancelled)
7. (Cancelled)
8. (Currently Amended) A method as in claim 97, wherein an electromagnet is associated with each of the first and second predetermined surface areas, positioned to draw the first or second article to the first or second predetermined surface area, respectively.

9. (Currently Amended) A method as in claim 7 of magnetically manipulating a chemical or biological agent comprising:

magnetically drawing a magnetically recruitable first article and a first chemical or biological agent immobilized relative to the first article to a first location and magnetically drawing a second article to a second location, wherein the first and second locations are first and second predetermined areas of a surface, respectively; and

selectively magnetically releasing the second article from the second location while holding the first article at the first location,

wherein the first agent is linked to a binding partner thereof and each of the first and second predetermined surface areas comprises an electrode.

10. (Original) A method as in claim 9, wherein each of the predetermined surface areas comprises an electrode, and an electromagnet is associated with each of the first and second predetermined surface areas, positioned to draw the first or second article to the first or second predetermined surface area, respectively.

11. (Currently Amended) A method as in claim 9, the first article immobilized relative to a signaling entity that is immobilized relative to the binding partner.

12. (Cancelled)

13. (Currently Amended) A method as in claim 12, of magnetically manipulating a chemical or biological agent, comprising:

magnetically drawing a magnetically recruitable first article to a first location, the first article comprising a magnetic bead, a first chemical or biological agent being fastened to the first article, a binding partner of the first agent being linked to the first agent, a nanoparticle being linked to the binding partner, and the first article being immobilized relative to a signaling entity that is immobilized relative to the binding partner;

magnetically drawing a second article comprising a magnetic bead carrying a second chemical or biological agent immobilized relative to the second article, to a second location; and

selectively magnetically releasing the second article from the second location while holding the first article at the first location.

~~wherein the first article comprises a magnetic bead, and a colloid particle is linked to the binding partner, and the second article comprises a magnetic bead carrying a second chemical or biological agent immobilized thereto.~~

14. (Currently Amended) A method as in claim 13, wherein the signaling entity is the ~~colloid particle nanoparticle~~.

15. (Currently Amended) A method as in claim 13, wherein the ~~colloid particle nanoparticle~~ includes an auxiliary signaling entity immobilized relative thereto.

16. (Currently Amended) A method as in claim 15, wherein the signaling entity is a metallocene fastened to the ~~colloid particle nanoparticle~~.

17. (Original) A method as in claim 16, wherein each of the predetermined surface areas comprises an electrode, and an electromagnet is associated with each of the first and second predetermined surface areas, positioned to draw the first or second article to the first or second predetermined surface area, respectively.

18. (Original) A method as in claim 16, wherein the metallocene is ferrocene.

19. (Currently Amended) A method as in claim 16, wherein the first article comprises a magnetic bead, and a ~~colloid particle nanoparticle~~ is linked to the binding partner, and the second article comprises a magnetic bead carrying a second chemical or biological agent immobilized relative thereto.

20. (Original) A method as in claim 18, wherein each of the first and second agents is a candidate drug.

21. (Original) A method as in claim 18, wherein the drawing step is carried out in the presence of a candidate drug, and each of the first and the second agents is a potential target of the candidate drug.

22. (Currently Amended) A method ~~as in claim 3, of magnetically manipulating a chemical or biological agent comprising:~~

providing a plurality of magnetic beads each carrying a chemical or biological agent immobilized relative thereto;

exposing the beads to a plurality of ~~colloid particles~~ nanoparticles each carrying a potential binding partner of the chemical or biological agents;

allowing some of the ~~colloid particles~~ nanoparticles to bind to some of the magnetic beads via chemical or biological agent/binding partner interaction while leaving some of the magnetic beads free of linkage to ~~colloid particles~~ nanoparticles;

magnetically drawing the magnetic beads to a plurality of predetermined locations at a surface;

determining first surface locations at which ~~colloid particles~~ nanoparticles have been drawn and second surface locations substantially free of ~~colloid particles~~ nanoparticles; and

selectively magnetically releasing magnetic beads from the second surface locations while holding magnetic beads at the first surface locations.

23. (Original) A method as in claim 22, further comprising removing magnetic particles released from the vicinity of the second surface locations; and

repeating one or more times the steps of magnetically drawing, determining, and releasing.

24. (Original) A method as in claim 22, further comprising:

removing magnetic particles released from the vicinity of the first and second surface locations;

releasing magnetic beads from the first surface locations; and

repeating one or more times the steps of magnetically drawing, determining, and releasing.

25. (Original) A method as in claim 24, further comprising, prior to the repeating step: adding fluid to dilute particles released from the first surface locations.
26. (Currently Amended) A method as in claim 23, comprising detecting the presence of ~~colloid particle~~ nanoparticles at surface locations visually.
27. (Currently Amended) A method as in claim 23, comprising detecting the presence of ~~colloid particle~~ nanoparticles at surface locations by electromagnetically stimulating a metallocene linked to the ~~colloid~~ nanoparticles.
28. (Currently Amended) A method as in claim 22, comprising detecting the presence of ~~colloid particle~~ nanoparticles at surface locations by electromagnetically stimulating a metallocene linked to the ~~colloid~~ nanoparticles.
29. (Original) A method as in 24, further comprising identifying at least one first chemical or biological agent.
30. (New) A method as in claim 9, wherein the first article further comprises a DNA sequence immobilized thereto which identifies the first agent, the method further comprising identifying the first agent by identifying the DNA sequence.
31. (New) A method as in claim 30, comprising first selectively magnetically releasing the second article from the second location while holding the first article at the first location, and then identifying the first agent by identifying the DNA sequence.

32. (New) A method as in claim 9, further comprising allowing the first chemical or biological agent to bind to a binding partner thereof, the binding partner immobilized relative to a DNA sequence identifying the binding partner; and
identifying the binding partner by identifying the DNA sequence.

33. (New) A method as in claim 32, comprising first selectively magnetically releasing the second article from the second location while holding the first article at the first location, and then identifying the binding partner by identifying the DNA sequence.

34. (New) A method as in claim 33, wherein the binding partner and DNA sequence are each immobilized relative to a common nanoparticle.

35. (New) A method as in claim 13, wherein first article further comprises a DNA sequence immobilized thereto which identifies the first agent, the method further comprising identifying the first agent by identifying the DNA sequence.

36. (New) A method as in claim 35, comprising first selectively magnetically releasing the second article from the second location while holding the first article at the first location, and then identifying the first agent by identifying the DNA sequence.

37. (New) A method as in claim 9, wherein the binding partner of the first agent is immobilized relative to a DNA sequence identifying the binding partner; and
identifying the binding partner by identifying the DNA sequence.

38. (New) A method as in claim 37, comprising first selectively magnetically releasing the second article from the second location while holding the first article at the first location, and then identifying the binding partner by identifying the DNA sequence.

39. (New) A method as in claim 38, wherein the binding partner and DNA sequence are each immobilized relative to a common nanoparticle.

40. (New) A method as in claim 22, further comprising providing at least one magnetic bead held at a first surface location according to the method, and identifying at least one chemical or biological agent carried by the at least one magnetic bead by identifying a DNA sequence immobilized relative to the magnetic bead.

41. (New) A method as in claim 22, further comprising providing at least one magnetic bead held at a first surface location according to the method, the magnetic bead immobilized relative to a nanoparticle, and identifying at least one binding partner of the chemical or biological agent carried by the at least one magnetic bead by identifying a DNA sequence immobilized relative to the nanoparticle.